

**ABSTRACT**

A part measurement system includes a press machine, a part measurement sensor, a part forming rail, and a press controller. The press machine includes a lower die coupled to an upper die, wherein the lower die includes a top surface supporting a strip of material to be formed into a part after a stripper plate coupled to the upper die contacts the strip of material. The part measurement sensor is located in the lower die and measures a critical dimension of the part while the part is in the lower die. The part forming rail is coupled to the lower die. The forming rail and the upper die form the critical dimension of the part. The press controller is coupled to the press machine and the sensor. The controller processes a measurement signal from the part measurement sensor of the critical dimension of the part, compares the measurement signal to a predetermined threshold value, and generates a command signal to the press machine to adjust the forming rail based on the measurement signal.